

**TESTIMONY OF RICHARD M. DOERFLINGER**

**on behalf of the**

**COMMITTEE FOR PRO-LIFE ACTIVITIES**

**NATIONAL CONFERENCE OF CATHOLIC BISHOPS**

**Subject: Human Cloning**

**Senate Commerce Subcommittee on Science, Technology and Space**

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I am Richard M. Doerflinger, Associate Director for Policy Development at the Secretariat for Pro-Life Activities, National Conference of Catholic Bishops. I am grateful for this opportunity to testify on human cloning, and to express our Conference's support for a federal ban on the practice as proposed in Senator Brownback's "Human Cloning Prohibition Act of 2001" (S. 790).

The sanctity and dignity of human life is a cornerstone of Catholic moral and social teaching. We believe a society can be judged by the respect it shows for human life, especially in its most vulnerable stages and conditions.

At first glance, human cloning may not seem to threaten respect for life because it is presented as a means for creating life, not destroying it. Yet it shows disrespect for life in the very act of generating it. Here human life does not arise from an act of love, but is manufactured in the laboratory to preset specifications determined by the desires of others. Developing human beings are treated as objects, not as individuals with their own identity and rights. Because cloning completely divorces human reproduction from the context of a loving union between man and woman, such children have no

“parents” in the usual sense. As a group of experts advising the Holy See has written:

In the cloning process the basic relationships of the human person are perverted: filiation, consanguinity, kinship, parenthood. A woman can be the twin sister of her mother, lack a biological father and be the daughter of her grandmother. *In vitro* fertilization has already led to the confusion of parentage, but cloning will mean the radical rupture of these bonds.<sup>1</sup>

From the dehumanizing nature of this technique flow many disturbing consequences. Because human clones would be produced by a means that involves no loving relationship, no personal investment or responsibility for a new life, but only laboratory technique, they would be uniquely at risk of being treated as “second-class” human beings.

In the present state of science, attempts to produce a liveborn child by cloning would require taking a callous attitude toward human life. Animal trials show that 95 to 99% of cloned embryos die. Of those which survive, many are stillborn or die shortly after birth. The rest may face unpredictable but potentially devastating health problems. Those problems are not detectable before birth, because they do not come from genetic defects as such – they arise from the disorganized expression of genes, because cloning plays havoc with the usual process of genetic reorganization in the embryo.<sup>2</sup>

Scenarios often cited as *justifications* for human cloning are actually *symptoms* of the disordered view of human life that it reflects and promotes. It is said that cloning could be used to

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<sup>1</sup>Reflections from the Pontifical Academy for Life, “Human Cloning Is Immoral” (July 9, 1997), in *The Pope Speaks*, vol. 43, no. 1 (January/February 1998), p. 29. Also see: Congregation for the Doctrine of the Faith, *Donum Vitae* (Instruction on Respect for Human Life in its Origin and on the Dignity of Procreation)(March 10, 1987), I.6 and II.B.

<sup>2</sup>See Testimony before the House Energy and Commerce Subcommittee on Oversight and Investigations, March 28, 2001, presented by Dr. Mark E. Westhusin and Dr. Rudolf Jaenisch (<http://energycommerce.house.gov/107/hearings/03282001Hearing141/hearing.htm>).

create “copies” of illustrious people, or to replace a deceased loved one, or even to provide genetically matched tissues or organs for the person whose genetic material was used for the procedure. Each such proposal is indicative of a utilitarian view of human life, in which a fellow human is treated as a means to someone else's ends -- instead of as a person with his or her own inherent dignity. This same attitude lies at the root of human slavery.

Let me be perfectly clear. In objective reality a cloned human being would not be an “object” or a substandard human being. Whatever the circumstances of his or her origin, he or she would deserve to be treated as a human person with an individual identity. But the depersonalized technique of manufacture known as cloning disregards this dignity and sets the stage for further exploitation. Cloning is not wrong because cloned human beings would lack human dignity -- it is wrong because they *have* human dignity, and are being brought into the world in a way that fails to respect that dignity.

Ironically, startling evidence of the dehumanizing aspects of cloning is found in some proposals ostensibly aimed at *preventing* human cloning. These initiatives would not ban human cloning at all -- but would simply ban any effort to allow cloned human embryos to survive. In these proposals, researchers are allowed to use cloning for the unlimited mass production of human embryos for experimentation -- and are then required by law to destroy them, instead of allowing them to implant in a woman's womb.

In other words: Faced with a 99% death rate from cloning, such proposals would “solve” the problem by ensuring that the death rate rises to 100%. No live clones, therefore no evidence that anyone performed cloning. This is reassuring for researchers and biotechnology companies who may wish the freedom to make countless identical human guinea pigs for lethal experiments. It is no great

comfort to the dead human clones; nor is it a solution worthy of us as a nation.

Sometimes it is said that such proposals would ban “reproductive cloning” or “live birth cloning,” while allowing “therapeutic cloning” or “embryo cloning.” This may sound superficially reasonable. If banning all cloning is too difficult a task, perhaps we could ban half of it – and the half that is “therapeutic” sounds like the half we’d like to keep.

But this description relies on a fundamental confusion as to what cloning is. I can sum up the real situation in a few propositions.

**1. All human cloning is embryo cloning.** Some accounts of cloning seem to imagine that cloning for research purposes produces an embryo, while cloning for reproductive purposes produces a baby or even a fully grown adult – like new copies of Michael Keaton or Arnold Schwarzenegger springing full-grown from a laboratory. This is, of course, nonsense. In the words of Professor Lee Silver of Princeton University, a leading advocate of human cloning: “Real biological cloning can only take place at the level of the cell.”<sup>3</sup>

Cloning technology can also be used to produce other kinds of cells; these are not the subject of this hearing, and they are explicitly excluded from the scope of Senator Brownback’s legislation. But when somatic cell nuclear transfer is used to replace the nucleus of an egg with the nucleus of a human body cell and the resulting cell is stimulated, a human embryo results, whatever one’s ultimate plans on what to do next.<sup>4</sup>

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<sup>3</sup>Lee M. Silver, *Remaking Eden: How Genetic Engineering and Cloning Will Transform the American Family* (Avon Books 1998) at 124.

<sup>4</sup>See the Fact Sheet, “Does Human Cloning Produce an Embryo?”, Secretariat for Pro-Life Activities, National Conference of Catholic Bishops, March 31, 1998

**2. In an important sense, all human cloning is reproductive cloning.** Once one creates a live human embryo by cloning, one has engaged in reproduction – albeit a very strange form of asexual reproduction. All subsequent stages of development -- gestation, birth, infancy, etc. -- are simply those which normally occur in the development of any human being (though reaching them may be far more precarious for the cloned human, due to the damage inflicted by the cloning procedure).

To say this is not to make a controversial moral claim about personhood or legal rights.<sup>5</sup> It is to state a biological fact: Once one produces an embryo by cloning, a new living being has arrived and the key event in reproduction has taken place. The complete human genome that once belonged to one member of the human species now also belongs to another. Anything that now happens to this being will be “environmental” influence upon a being already in existence -- transfer to a womb and live birth, for example, are chiefly simple changes in location.

Moreover, even government study commissions favoring harmful human embryo experiments concede that with the generation of a new embryo, a new life has come into the world. They describe the early embryo as “a developing form of human life” which “warrants serious moral consideration.”<sup>6</sup>

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([www.nccbuscc.org/prolife/issues/bioethic/fact398.htm](http://www.nccbuscc.org/prolife/issues/bioethic/fact398.htm)).

<sup>5</sup>Professor Silver, for example, agrees that cloning is accomplished at the embryonic level, while also claiming that the cloned embryo (and all other embryos) lack full moral significance until later in development. To his Princeton colleague Peter Singer and some other bioethicists, humans do not acquire the rights of persons until some time *after* birth. See P. Singer, “Justifying Infanticide,” in *Writings on an Ethical Life* (HarperCollins 2000), 186-193.

<sup>6</sup>*Final Report of the Human Embryo Research Panel* (National Institutes of Health: September 27, 1994) at 2. The National Bioethics Advisory Commission, which defined the embryo as “the beginning of any organism in the early stages of development,” likewise said that “the embryo merits respect as a form of human life” (though not, the Commission thought, the level of respect owed to persons). See *Ethical Issues in Human Stem Cell Research* (National Bioethics Advisory

Thus generating this new human life in the laboratory confronts us with new moral questions: Not “Should we clone?” but “What do we do with this living human we have produced by cloning?” If all the available answers are lethal to the cloned human 95% to 100% of the time, we should not allow cloning.

**3. All human cloning, at present, is experimental cloning.** The line between “reproductive” and “experimental” cloning is especially porous at present, because any attempt to move toward bringing a cloned child to live birth would first require many thousands of trials using embryos *not* intended for live birth. Years of destructive research of this kind may be necessary before anyone could bring a cloned human through the entire gestational process with any reasonable expectation of a healthy child. Therefore legislation which seeks to bar implantation of a cloned embryo for purposes of live birth, while allowing unlimited experimental cloning, would actually facilitate efforts to refine the cloning procedure and prepare for the production of liveborn children. This would be irresponsible in light of the compelling principled objections to producing liveborn humans by cloning.

**4. No human cloning is “therapeutic” cloning.** The attempt to label cloning for purposes of destructive experiments as “therapeutic cloning” is a stroke of marketing genius by supporters of human embryo research. But it does serious damage to the English language and common sense, for two reasons.

First, the experiments contemplated here are universally called “*nontherapeutic*

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Commission: September 1999) at 85, 50. Also see the sources cited in the Fact Sheet, “What is an Embryo?”, Secretariat for Pro-Life Activities, National Conference of Catholic Bishops, Feb. 26, 1998 ([www.nccbuscc.org/prolife/issues/bioethic/fact298.htm](http://www.nccbuscc.org/prolife/issues/bioethic/fact298.htm)).

experimentation” in law and medical ethics – that is, the experiments harm or kill the research subject (in this case the cloned human embryo) without any prospect of benefitting that subject. This standard meaning of “nontherapeutic” research is found, for example, in various state laws forbidding such research on human embryos as a crime.<sup>7</sup> Experiments performed on one subject solely for possible benefit *to others* are never called “therapeutic research” in any other context, and there is no reason to change that in this context.

Second, the “therapeutic” need for human cloning has always been highly speculative; it now seems more doubtful than ever in light of recent advances in adult stem cell research and other noncontroversial alternatives. In the stem cell research debate, as one recent news report observes, “There is one thing everyone agrees on: Adult stem cells are proving to be far more versatile than originally thought.”<sup>8</sup> Adult stem cells have shown they can be “pluripotent” – producing a wide array of different cells and tissues.<sup>9</sup> They can also be multiplied in culture to produce an ample supply of tissue

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<sup>7</sup>For example, see La. Rev. Stat. tit. 14 §87.2 (a crime to conduct any experiment or study on a human embryo except to preserve the health of that embryo) and tit. 40 §1299.35.13 (prohibiting experimentation on an unborn child unless it is therapeutic to that child); Mich. Comp. Laws §333.2685 (prohibiting use of a live human embryo for nontherapeutic research that will harm the embryo); Pa. Cons. Stat. tit. 18 §3216(a) (nontherapeutic experimentation on an unborn child at any stage is a felony; defining “nontherapeutic”); S.D. Codified Laws §§34-14-16 through 34-14-20 (prohibiting nontherapeutic research that harms or destroys a human embryo; defining “nontherapeutic research”).

<sup>8</sup>A. Zitner, “Diabetes Study Fuels Stem Cell Funding War,” *Los Angeles Times*, April 27, 2001 ([www.latimes.com/news/nation/updates2/lat\\_stemwar010427.htm](http://www.latimes.com/news/nation/updates2/lat_stemwar010427.htm)).

<sup>9</sup>Citing eleven other studies, a study funded by the National Institutes of Health (NIH) and the Christopher Reeve Paralysis Foundation states: “Pluripotent stem cells have been detected in multiple tissues in the adult, participating in normal replacement and repair, while undergoing self-renewal.” D. Woodbury et al., “Adult Rat and Human Bone Marrow Stromal Cells Differentiate Into Neurons,” 61 *Journal of Neuroscience Research* 364-370 (August 15, 2000) at 364.

for transplantation.<sup>10</sup> Best of all, using a patient's own cells solves all problems of tissue rejection, the chief advantage cited until now for use of cloning.<sup>11</sup>

In its 1997 report on human cloning, the National Bioethics Advisory Commission reviewed the idea of cloning human embryos to create "customized stem cell lines" but described this as "a rather expensive and far-fetched scenario" – and added that a moral assessment is necessary as well:

Because of ethical and moral concerns raised by the use of embryos for research purposes it would be far more desirable to explore the direct use of human cells of adult origin to produce specialized cells or tissues for transplantation into patients.<sup>12</sup>

Now PPL Therapeutics, the Scottish firm involved in creating "Dolly" the sheep, says it has indeed found a way to reprogram ordinary adult cells to become stem cells capable of being directed to form almost any kind of cell or tissue – without creating or destroying any embryos.<sup>13</sup>

Even in the field of embryonic stem cell research, new developments have called into question

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<sup>10</sup>See: D. Colter et al., "Rapid expansion of recycling stem cells in cultures of plastic-adherent cells from human bone marrow," 97 *Proc. Natl. Acad. Sci. USA* 3213-8 (March 28, 2000)(adult stem cells amplified a billion-fold in six weeks, retaining their multipotentiality for differentiation); E. Rosler et al., "Cocultivation of umbilical cord blood cells with endothelial cells leads to extensive amplification of competent CD34+CD38- cells," 28 *Exp. Hematol.* 841-52 (July 2000).

<sup>11</sup>A recent report on use of adult stem cells to form new muscles, nerves, liver cells and blood vessels observes: "None of these approaches use embryonic stem cells, which some oppose on ethical grounds. Another advantage is that they use tissue taken from the patient's own body, so there is no risk of rejection or need for drugs to suppress immune system defenses." See "Approach may renew worn hearts," Associated Press, November 12, 2000.

<sup>12</sup>*Cloning Human Beings: Report and Recommendations of the National Bioethics Advisory Commission* (Rockville, MD: June 1997) at 30-31. The Commission outlined three alternative avenues of stem cell research, two of which seemed not to involve creating human embryos at all.

<sup>13</sup>"PPL follows Dolly with cell breakthrough," *Financial Times*, February 23, 2001.



the need for cloning. The problem of tissue rejection may not be as serious as once thought when cells from early human development are used, and there are other ways of solving the problem – for example, by genetically modifying cells to become a closer match to a patient.<sup>14</sup>

For all these reasons, a recent overview of the field concludes that human “therapeutic cloning” is “falling from favour,” that “many experts do not now expect therapeutic cloning to have a large clinical impact.” Even James Thomson of the University of Wisconsin, a leading practitioner and advocate of embryonic stem cell research generally, calls this approach “astronomically expensive”; in light of the enormous wastefulness of the cloning process and the damage it does to gene expression, “many researchers have come to doubt whether therapeutic cloning will ever be efficient enough to be commercially viable” even if one could set aside the grave moral issues involved.<sup>15</sup>

We should clearly understand what would be entailed by any effort to implement a “therapeutic cloning” regimen for stem cell transplants. This would not be a case in which human embryos are destroyed once to form a permanent cell line for future use. For *each individual patient*, countless human embryos – the patient’s genetic twin brothers or sisters – would have to be created in the laboratory and then destroyed for their stem cells, in the hope of producing genetically matched tissue for transplantation. Thus the creation and destruction of human life in the laboratory would become an ongoing aspect not only of medical research but of everyday medical practice. And what would become of those who have profound moral objections to cloning, and to having new lives created and destroyed for our benefit? Would we be told that we must choose between our life and our

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<sup>14</sup>P. Aldhous, “Can they rebuild us?”, 410 *Nature* 622-5 (5 April 2001) at 623.

<sup>15</sup>*Id.* at 622.

conscience?

In short, the “therapeutic” case for cloning is as morally abhorrent as it is medically questionable. Which brings me to a final proposition on how to assess proposals for preventing human cloning.

**5. Because cloned humans are humans, any proposal to prevent human cloning must not do to cloned humans anything that would be universally condemned if done to other humans at the same stage of development.**

This proposition can be universally endorsed by people on both sides of the cloning issue, and on both sides of the abortion issue. To quote Lee Silver once more: “Cloned children will be full-fledged human beings, indistinguishable in biological terms from all other members of the human species.”<sup>16</sup> Thus, for example, cloned embryos deserve as much respect as other human embryos of the same stage – whatever that level of respect may be.

Silver’s point about cloned humans being “indistinguishable” from others raises a major practical problem for efforts to allow creation of cloned embryos while forbidding their transfer to a womb. Once the embryo is created in a fertility clinic’s research lab (as such a law would permit) and is available for transfer, *how could the government tell* that this embryo was or was not created by cloning? And if it cannot do so, how can it enforce a prohibition on transferring cloned embryos (but not IVF embryos) to a woman’s womb?

However, an even more serious moral and legal issue arises at this point. If the government

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<sup>16</sup>Silver at 125.

allows use of cloning to produce human embryos for research but prohibits transfer to the womb, what will it be *requiring* people to do? If transfer has already occurred, the only remedy would seem to be government-mandated abortion – or at least, jailing or otherwise punishing women for remaining pregnant and giving birth. We need not dwell on the abhorrence such a solution would rightly provoke among people on all sides of the abortion issue. It would be as “anti-choice” as it is “anti-life.”

However, even if the law could act before transfer actually occurs, the problem is equally intractable. For the law would have to *require* that these embryos be killed -- defining for the first time in U.S. history a class of human embryos that it is a crime *not* to destroy. It is impossible to reconcile such a law with the profound “respect” and “serious moral consideration” that even supporters of human embryo research say should be accorded to all human embryos.

If the law *permitted* creation of cloned embryos for research, while *prohibiting* their creation for any other purpose (or prohibiting any other use of them once created), the government would be approving the one practice in human embryo research that is widely condemned even by supporters of abortion rights: specially creating human embryos solely for the purpose of research that will kill them.

In 1994 the National Institutes of Health did propose funding such abuses, as part of a larger proposal for funding human embryo research generally. The moral outcry against this aspect of the proposal, however, was almost universal. Opinion polls showed massive opposition, and the NIH panel making the recommendation was inundated with over 50,000 letters of protest. The *Washington Post*, while reaffirming its support for legalized abortion, attacked the Panel’s recommendation:

The creation of human embryos specifically for research that will destroy them is unconscionable... [I]t is not necessary to be against abortion rights, or to believe human life literally begins at conception, to be deeply alarmed by the notion of scientists’

purposely causing conceptions in a context entirely divorced from even the potential of reproduction.<sup>17</sup>

The *Chicago Sun-Times* likewise editorialized:

We can debate all day whether an embryo is or isn't a person. But it is unquestionably human life, complete with its own unique set of human genes that inform and drive its own development. The idea of the manufacture of such a magnificent thing as a human life purely for the purpose of conducting research is grotesque, at best. Whether or not it is federally funded.<sup>18</sup>

In the end, President Clinton set aside the recommendation for creation of "research embryos."

Every year since then, Congress has prohibited funding for all harmful embryo research at the National Institutes of Health, through the Dickey amendment to the annual Labor/HHS appropriations bills.<sup>19</sup> However, *even members of Congress who have led the opposition to the Dickey amendment agree with its rejection of special creation of human embryos for research.* On the only occasion when an amendment was offered on the House floor to weaken the Dickey amendment, the sponsors emphasized that it would leave intact the clause rejecting the creation of embryos for research.<sup>20</sup> Similarly, the recent NIH guidelines for embryonic stem cell research, as well as Senator

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<sup>17</sup>Editorial, "Embryos: Drawing the Line," *The Washington Post*, October 2, 1994 at C6.

<sup>18</sup>Editorial, "Embryo Research Is Inhuman," *Chicago Sun-Times*, October 10, 1994 at 25.

<sup>19</sup>The current version is Section 510 of the Labor/HHS appropriations bill for Fiscal Year 2001, H.R. 5656 (enacted through Section 1(a)(1) of H.R. 4577, the FY '01 Consolidated Appropriations Act, Public Law 106-554). It bans funding any creation of human embryos (by cloning or other means) for research purposes, and any research in which human embryos are harmed or destroyed.

<sup>20</sup>"Let me say that I agree with our colleagues who say that we should not be involved in the creation of embryos for research. I completely agree with my colleagues on that score," said Rep. Nancy Pelosi, arguing in favor of research on "spare" embryos originally created for fertility treatment. The sponsor of the weakening amendment, Rep. Nita Lowey, said: "I want to make it very clear: We

Specter's "Stem Cell Research Act of 2001," explicitly reject the idea of using embryos specially created for research purposes.<sup>21</sup>

As mentioned above, at least nine states generally prohibit harmful experiments on human embryos living outside a woman's body. A federal law that facilitates such experimentation, by approving it as the only *accepted* use for human embryo cloning, would mark a radical departure from state precedents on respect for nascent human life.<sup>22</sup> In short, human embryos produced by cloning would be created specifically, and solely, for destructive embryo experiments that are a crime in some states.

Ironically, it seems the cloning procedure is so demeaning and dehumanizing that people

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are not talking about creating embryos.... President Clinton again has made it very clear that early-stage embryo research may be permitted but that the use of Federal funds to create embryos solely for research purposes would be prohibited. *We can all be assured that the research at the National Institutes of Health will be conducted with the highest level of integrity. No embryos will be created for research purposes...*" 142 *Cong. Record* at H7343 (July 11, 1996)(emphasis added). The weakening amendment failed nonetheless, 167 to 256. *Id.* at H7364. While this debate concerned federal funding, supporters of the Lowey amendment said it was "very hard to understand" why standards for ethical research should be different for publicly funded and privately funded research. See remarks of Rep. Fazio at H7341-2.

<sup>21</sup>The NIH guidelines deny funding for "research utilizing pluripotent stem cells that were derived from human embryos created for research purposes," and "research in which human pluripotent stem cells are derived using somatic cell nuclear transfer, *i.e.*, the transfer of a human somatic cell nucleus into a human or animal egg." *National Institutes of Health Guidelines for Research Using Human Pluripotent Stem Cells*, 65 *Fed. Reg.* 51976-81 (August 25, 2000) at 51981. Senator Specter's bill supports embryonic stem cell research but insists that "the research involved shall not result in the creation of human embryos." 107<sup>th</sup> Congress, S. 723, Sec. 2.

<sup>22</sup>In Louisiana, for example, a human embryo fertilized in the laboratory may generally be used *only* for efforts at a live birth, not for research. La. Rev. Stat. tit. 9 §122. What would happen if a new federal law turned this on its head, and banned live birth while allowing destructive research on cloned embryos – keeping in mind that cloned embryos may be biologically indistinguishable from IVF embryos once they are created?

somehow assume that a brief life as an object of research, followed by destruction, is “good enough” for any human produced by this technique. The fact that the procedure invites such morally irresponsible policies is another reason to ban it. For if an embryo produced by cloning cannot even garner the respect that we all agree should be accorded to all other human embryos, but is treated as a dangerous entity that must not be allowed to survive, how will we view any human clone who *is* ultimately born alive? As a mere “organ farm” for others? Or could we compartmentalize our thinking, so that an embryo created solely for destructive research will be greeted as a new individual with full human rights if someone *does* bring him or her to full term? In light of some uses proposed even now for born human clones, it would be foolish to assume that our society will shift gears so easily.

We must remember that it is morally wrong and irresponsible to *make* human clones, not to *be* a human clone. The innocent victim of cloning should not receive a government-sanctioned death penalty simply for the crime of existing. Therefore the approach taken by the Brownback/Weldon bill, prohibiting the use of cloning to *initiate* the development of a new human organism, is the only morally responsible approach as well as the clearest and most effective one in practical terms.

**In short: Some would reject the most straightforward and effective legislation against human cloning, solely to protect the use of cloning for a practice (creating human embryos solely for research) which is of highly questionable use and has been rejected by policy makers on both sides of the abortion and stem cell debates. Such advocacy should not prevent Congress from taking the right course on this issue.**

Research in the cloning of animals, plants, and even human genes, tissues and cells (other than embryos) can be beneficial and presents no intrinsic moral problem. However, when research turns its

attention to human subjects, we must be sure not to undermine human dignity in the pursuit of human progress. Human experimentation divorced from moral considerations might progress more quickly on a technical level -- but at the loss of our humanity.

A ban on human cloning will help direct the scientific enterprise toward research that benefits human beings without producing, exploiting and destroying fellow human beings to gain those benefits. Creating human life solely to cannibalize and destroy it is the most unconscionable use of human cloning -- not its highest justification.